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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/773,038	02/05/2004	Detlef Haje	2002P10620US	6104

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SIEMENS CORPORATION
INTELLECTUAL PROPERTY DEPT.
170 WOOD AVENUE SOUTH
ISELIN, NJ 08830

EXAMINER

HANAN, DEVIN J

ART UNIT	PAPER NUMBER
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3745

DATE MAILED: 02/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/773,038

Applicant(s)

HAJE ET AL.

Examiner

Devin Hanan

Art Unit

3745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 18-24 is/are allowed.
- 6) ☒ Claim(s) 1-8, 12-14, 16 and 17 is/are rejected.
- 7) ☒ Claim(s) 9-11 and 15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 July 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 9/14/22005 have been fully considered and arguments regarding the channel in the main blade of claim 15 are persuasive (remarks, page 8, paragraph 1). The amendment to claim 8, which added another limitation to the method, was persuasive (remarks, page 7, paragraph 5). Amendments to claims 1 and 17 were not persuasive because the invention of Kuhn et al. inherently has the cooling medium provided at a pressure that can be modified in relation to the pressure of the main flow (col. 4 lines 6-10).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-8, 12-14 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Kuhn et al. (U.S. Patent 6,227,799).

Kuhn et al. discloses a steam turbine rotor (23, 25) extending along an axial extent (axis 2) with an outer side (3) adjoining an outer space (space between 19 and 11) arranged to receive a main flow of a fluid working medium;

a first location arranged along the outer side (col. 2 lines 40-59), at which a first blade is held; and

at least one integrated passage (5) extending continuously at least between a first region arranged in front of the first location and a second region arranged behind the first location (col. 2 lines 40-59).

Regarding claim 2, Kuhn et al. discloses a second location arranged along the outer side at which a second blade is held, the second location arranged behind the first location along the axial extent and the passage extending continuously at least between a first region arranged in front of the first location and a second region arranged behind the second location (col. 2 lines 40-59).

Regarding claim 3, Kuhn et al. discloses a number of further locations at each of which a blade is held arranged between the first location and the second location (from turbine 23 to turbine 25).

Regarding claim 4, Kuhn et al. discloses at least one passage (5) is part of a combined passage system, which extends along the axial extent.

Regarding claim 5, Kuhn et al. discloses at least one passage (5) is part of a combined passage system, which has an external feed (8) that is provided for the incoming flow of cooling medium.

Regarding claim 6, Kuhn et al. discloses at least one passage (5) is part of a combined passage system, which includes a channel that at least partially encircles a circumferential extent (3) of the rotor.

Regarding claim 7, Kuhn et al. discloses the first region has a first opening to the main flow (8).

Regarding claim 8, Kuhn et al. discloses the second region has a second opening to the main flow (12).

Regarding claim 12, Kuhn et al. discloses the passage leads through a blade in particular through a blade root (38).

Regarding claim 13, Kuhn et al. discloses a groove (20) at a blade root that is part of the passage.

Regarding claim 14, Kuhn et al. discloses a bore through a single blade root that is part of the passage.

Regarding claim 17, Kuhn et al. discloses a steam turbine having a steam turbine rotor (23, 25) extending along an axial direction (axis 2) with

an outer side (3) adjoining an outer space (space between 19 and 11) arranged to receive a main flow of a fluid working medium;

a first location arranged along the outer side (col. 2 lines 40-59), at which a first blade is held; and

at least one integrated passage (5) extending continuously at least between a first region arranged in front of the first location and a second region arranged behind the first location (col. 2 lines 40-59).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kuhn et al. in view of Norton et al. (U.S. Patent 5,380,154).

Regarding claim 16, Kuhn et al. does not disclose using a thermally insulating coating on the blade.

However, Norton et al. teaches of ceramic coatings on high temperature turbine guide vanes and blades for the purpose of enhancing heat resistance (col. 1 lines 47-49).

Since Kuhn et al. and Norton et al. are from the same field of endeavor, fluid turbines, Norton et al. would have been recognized in the pertinent art of Kuhn et al. It would have been obvious at the time the invention was made to one of ordinary skill in the art to add the ceramic coating of Norton et al. to the blade of Kuhn et al. for the purpose of enhancing heat resistance (col. 1 lines 47-49).

Allowable Subject Matter

Claims 18-25 are allowed.

Claims 9-11 and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Devin Hanan whose telephone number is 571-272-6089. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Look can be reached on 571-272-4820. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Devin Hanan
Patent Examiner
Art Unit 3745



EDWARD K. LOOK
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700

2/9/06